

In the Claims:

Please amend claims 1, 7-9 and 15 and cancel claims 2, 6, 10 and 14 as follows:

1. (Currently Amended) A method of manufacturing a semiconductor device, comprising:

providing a semiconductor substrate for which given processes for forming the semiconductor device have been implemented;

forming a screen oxide film on the substrate;

implanting a Group III monoatomic dopant having a higher atomic weight than boron at a given depth within the p well of the semiconductor substrate by means of an ion implantation process, thus forming an ion implantation layer in the p well; and

implementing a rapid thermal process to activate the dopant after the ion implantation layer is formed and before the screen oxide film is etched or removed.

2. (Cancelled)

3. (Previously Presented) The method as claimed in claim 1, wherein the Group III ion implantation process includes implanting the Group III monoatomic dopant at a concentration range of  $5 \times 10^{11} \sim 1 \times 10^{13}$  ion/cm<sup>2</sup> with an energy range of 10 ~ 50KeV.

4. (Original) The method as claimed in claim 1, wherein the dopant is indium.

5. (Previously Presented) The method as claimed in claim 1, wherein the ion implantation process includes implanting the dopants at a tilt angle range of 3 ~ 13°.

6. (Cancelled)

7. (Currently Amended) The method as claimed in claim 6<sub>1</sub>, wherein the rapid thermal process is implemented at a temperature range of 800 ~ 1100°C at a heating rate range of 20 ~ 50 °C/sec for a time period range of 5 ~ 30 seconds.

8. (Currently Amended) The method as claimed in claim 6<sub>1</sub>, wherein the rapid thermal process is implemented under a nitrogen atmosphere.

9. (Currently Amended) A method of manufacturing a semiconductor device, comprising:

forming a screen oxide film on a semiconductor substrate;  
forming a p well in a the semiconductor substrate by implanting boron in the substrate by means of an ion implantation process; and  
forming an ion implantation layer in the p well by implanting a Group III monoatomic dopant having a higher atomic weight than boron at a predetermined depth within the p well by means of an additional ion implantation process; and  
implementing a rapid thermal process to activate the dopant after the ion implantation layer is formed and before the screen oxide film is etched or removed.

10. (Cancelled)

11. (Currently Amended) The method as claimed in claim 4 9, wherein the Group III monoatomic dopant is implanted at a concentration range of  $5 \times 10^{11} \sim 1 \times 10^{13}$  ion/cm<sup>2</sup> with an energy range of 10 ~ 50KeV.

12. (Currently Amended) The method as claimed in claim 4 9, wherein the dopant is indium.

13. (Currently Amended) The method as claimed in claim 4 9, wherein the ion implantation process includes implanting the dopants at a tilt angle range of 3 ~ 13°.

14. (Cancelled)

15. (Currently Amended) The method as claimed in claim 14 9, wherein the rapid thermal process is implemented at a temperature range of 800 ~ 1100°C at a heating rate range of 20 ~ 50 °C/sec for a time period range of 5 ~ 30 seconds.

16. (Previously Presented) The method as claimed in claim 15, wherein the rapid thermal process is implemented under a nitrogen atmosphere.